



MONOCLONAL ANTIBODY

For Research Use Only.
Not for use in diagnostic procedures.

ANTIBODY SPECIFICITY

The PCA-1 antigen is expressed preferentially on plasma cells and has a molecular weight of 26 kD.¹ It is also weakly expressed on granulocytes, monocytes, and activated T cells. Peripheral blood B cells can be induced to express PCA-1 in a pokeweed mitogen model of B cell differentiation at a time when surface immunoglobulin is lost, and cytoplasmic Ig and surface CD38 antigen is expressed. These findings suggest that PCA-1 antigen is expressed at terminal stages of B cell differentiation.²

REAGENT

COULTER CLONE PCA-1
PN 6602714 - 100 tests (0.5 mL)

CLONE:	138 was derived from the hybridization of mouse NS-1 cells with spleen cells from Balb/c mice immunized with tumor cells from a patient with plasma cell leukemia. ²
Ig CHAIN:	Mouse IgG2a heavy and kappa light chains
SOURCE:	Ascites fluid
PURIFICATION:	Ion exchange chromatography
CONJUGATION:	PCA-1 (none)

REAGENT CONTENTS

The final concentration of nonantibody reagents when reconstituted is 0.2% BSA, 0.01 M potassium phosphate, 0.15 M NaCl and 0.1% NaN₃.

STATEMENT OF WARNINGS

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use reagent beyond the expiration date on the vial label.
5. Minimize exposure of reagent to light during storage or incubation.
6. Avoid microbial contamination of reagent or erroneous results may occur.

7. Use Good Laboratory Practices (GLP) when handling this reagent.
8. Harmful if swallowed.
9. After contact with skin, wash immediately with plenty of water.

STORAGE CONDITIONS AND STABILITY

Unreconstituted, lyophilized reagent is stable to the expiration date on the vial label when stored at 2-8°C. Do not freeze. Minimize exposure to light.

Reconstituted stock solution of lyophilized reagent is stable as follows:

- 6 months when stored at 2-8°C or 0 to -20°C when reconstituted using the Reconstitution Procedure described in the REAGENT PREPARATION section. If all of a reconstituted reagent is not to be used within 6 months, follow the Freezing Procedure.
- 1 year when stored at -70°C using the Freezing Procedure.

Freezing Procedure

MATERIALS REQUIRED BUT NOT SUPPLIED:

PBS - Phosphate Buffered Saline (pH=7.2) PN 6603369
PBS containing 2% heat-inactivated fetal or newborn calf serum (FCS). Dilute 2 mL of calf serum to 100 mL with PBS.

1. Dilute the reconstituted stock solution of the COULTER CLONE reagent with PBS containing 2% FCS prior to freezing as follows:

Add 5 µL of reconstituted stock solution (1 test*) to 100 µL of PBS with 2% FCS**.

*These may be frozen in multiple test volume aliquots.
**This yields 2X the concentration of the working solution.

2. Prior to use, allow the frozen aliquot to reach 20-25°C.
3. The frozen aliquot, at 2X the final concentration, must be further diluted to equal the total volume as calculated in the REAGENT PREPARATION section. Dilute each aliquot with the appropriate volume of PBS without 2% FCS and mix well.
4. Avoid repeated freeze/thaw cycles. This will denature the antibody protein.
5. Do not store in a self-defrosting freezer.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this reagent (Lyophilized = white plug; Reconstituted = clear, colorless liquid), or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used. If the lyophilized material appears moist, do not use.

REAGENT PREPARATION

Reconstitute the lyophilized COULTER CLONE PCA-1 reagent by adding 500 µL of distilled water to the vial. This is the stock solution. Centrifuge the stock solution at 20-25°C at 100,000 x g for 10 minutes to optimize staining results. Use this liquid reagent directly from the vial as the stock solution. The reagent working solution* is prepared as follows (volume listed is on a per test basis):

Add 5 µL of stock solution to 195 µL of PBS**.

*Diluted reagent working solution is good for day of preparation only.

**PBS - Phosphate Buffered Saline (pH=7.2).

Bring reagent to 20-25°C prior to use.

USAGE

This reagent is for use with standard flow cytometry methodologies.

The use of PCA-1 in this reagent is not intended for enumeration of plasma cells in clinical diagnostic applications.

SELECTED RESEARCH REFERENCES

1. Horibe K and Knowles RW. 1986. Human B cell antigens detected by the workshop antibodies: A comparison of serologic and immunochemical patterns. Reinherz EL, Haynes BF, Nadler LM and Bernstein IK, eds. Leukocyte Typing II. New York, NY: Springer-Verlag. p.189.
2. Anderson KC, Park EK, Bates MP, Leonard RCF, Hardy R, Schlossman SF and Nadler LM. 1983. Antigens on human plasma cells identified by monoclonal antibodies. J Immunol 130:1132-1138.

PRODUCT AVAILABILITY

COULTER CLONE PCA-1
PN 6602714 - 100 tests (0.5 mL)

For additional information in the USA, call 800-526-7694. Outside the USA, contact your local Coulter Representative.

TRADEMARKS

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